

SR #	FY 2005 RESEARCH PROJECT TITLE	FUNDED	PROJECT NO
EN-01	Guidance for Defining Appropriate Indirect and Cumulative Impacts Study Area for Road Widening Projects on Existing Location		
EN-02	Determination of the Causes of Increased NOx Emissions from the Use of Biodiesel in Heavy Equipment		
EN-03	Real World Duty Cycles and Utilization for Construction Equipment in NC		
EN-04(1)	Stream Restoration Success Criteria and Monitoring Protocols	Yes	2005-04
EN-04(2)	Stream Restoration Success Criteria and Monitoring Protocols		
EN-05	Temporal Frequency for Freshwater Mussel Population Surveys to Conduct an Accurate Assessment of Species Presence & Diversity		
EN-06	Propagation of Freshwater Mussels for Augmenting Native Populations	Yes	2005-07
EN-07	Use of the Land Use Model, SLEUTH, for ICI Analysis		
EN-08	Evaluating Systems to Reduce Road Improvement Impacts on Mountain Streams	Yes	2005-05
EN-X1	Ecological Assessment of a Wetlands Mitigation Bank: Phase III (Assessment of Restoration)	Yes	2005-06
EN-X2	Characterization and Design Guidelines for Use of FGD Material		
EN-X3	Modeling NC12 Vulnerability to Barrier Island Overwash and Breaching		
PL-01(1)	Rural Planning Organizations		
PL-01(2)	Rural Planning Organizations		
PL-02	North Carolina Truck Network Models		
PL-03	Transportation Needs Data Management System		
PL-04	Benchmarking for North Carolina Public Transportation Systems	Yes	2005-12
PL-05	Determining Vehicle Miles Traveled (VMT) within City/Urban Areas		
PL-06	Free Flow Speed Analysis Tool		
PL-07	Multi-Year Travel Model Research	Yes	2005-11
PL-X1	Pedestrian and Vehicular Traffic Management in Response to Major Urban Disasters		
OP-01(1)	Crash Data Quality		
OP-01(2)	Crash Data Quality		
OP-02	Evaluating the Safety Benefits of Closed-Loop Traffic Signal Systems in North Carolina		
OP-03/04	Economic Impact of and Mitigation Measures for Traffic Incidents on North Carolina's Interstate Facilities		
OP-04	Economic Impact of Traffic Incidents on North Carolina Interstate Facilities		
OP-05	Effectiveness of Traveler Information Tools		
OP-06	Traffic Control Design for Portable Concrete Barriers	Yes	2005-10
OP-07	Designing an Efficient Nighttime Sign Inspection Program that Ensures Motorist Safety	Yes	2005-08
OP-08	Determining the Public Perception and Understanding of Diagrammatic and Exit Only Signing		
OP-09/10/13	Capacity and Safety of Single and Double Lane Loop Ramps		
OP-10	Capacity of Loop Ramps		

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OP-11	Standard Lane Drops		
OP-12	Capacity and Safety Impacts of Triple Left Turn Lanes		
OP-13	Capacity and Safety Impacts of Dual Lanes on Interchange Loops		
OP-14	Backup Power Protection		
OP-15	Herbicide Options for Weed Management in the North Carolina Highway Wildflower Program	Yes	2005-09
OP-16	The In-Use Evaluation of Fuel Cells as Power Sources for DOT Fixed Facilities and Potential for Future Mobile Equipment Use		
OP-X1	Chemical Alternatives to Blasting: Design Guidelines, Construction Specifications, and Inspection Documents		
OP-X2	An Integrated Infrastructure Management Information System for Emergency Response and Planning		
PV-01	Tensile Strength - A Design and Evaluation Tool for Superpave Mixtures	Yes	2005-14
PV-02	Development of APA Design Criteria for Surface Mixes	Yes	2005-13
PV-03	Performance Based Analysis of Polymer Modified Emulsions for Bituminous Surface Treatments		
PV-04	Performance Assessment of PADL & HB or B25.0B under Jointed Concrete Pavement		
PV-05	Crack Sealing and Resurfacing Performance		
PV-06	Performance of Surface Treatments in North Carolina		
PV-07	Updating and Automating Construction Aggregate Testing Process		
PV-08	Use of Recycled Glass Aggregates in Concrete		
PV-X1	Use of Lime as Anti-strip Additive for Mitigating Moisture Susceptibility of Asphalt Mixes Containing Baghouse Fines	Yes	2005-15
PV-X2	Accelerated Pavement Testing for the Evaluation of Moisture Damage in Hot Mix Asphalt		
PV-X3	The Impact of Clay on Early Jet Grouting Strengths		
ST-01	Fuzzy Neural Network Models for Geotechnical Problems	Yes	2005-17
ST-02	Settlement Mitigation of Soft Coastal Deposits Using Degradable Wick Drains		
ST-03	Wavelet Analysis for Evaluating Unknown Foundations		
ST-04	Full Scale Testing of Overhang Falsework Hangers on NCDOT Modified Bulb Tee (MBT) Girders	Yes	2005-18
ST-05	Debonded Strands		
ST-06	Implementation of Self-Consolidating Concrete (SCC) in Prestressed Concrete Girders		
ST-07(1)	Pile Bent Design Criteria	Yes	2005-19
ST-07(2)	Pile Bent Design Criteria		
ST-08	Lateral Torsional Bending in Heavily Skewed Steel Bridges		
ST-09	Design of Footing and Pile/Footing Connection		
ST-10(1)	Development of an Earth Pressure Model for Design of Retaining Structures in Piedmont Soils	Yes	2005-16
ST-10(2)	Development of an Earth Pressure Model for Design of Retaining Structures in Piedmont Soils		
ST-X1	Strengthening of Steel Structural Elements with Carbon Fiber Reinforced Polymers (CFRP)		